

PROPOSED PROJECT

Mortality

- Warm water temperatures
- Redd scour
- Redd dewatering
- Sedimentation (eggs)
- Fry stranding; juvenile isolation
- RBDD (juveniles)
- Predation
- Entrainment

Reduced growth

- Warm water temperatures
- Juvenile isolation
- Habitat degradation
- Competition with hatchery fish

Reduced reproductive success

- RBDD
- Warm water temperatures
- Limited spawning habitat availability
- Competition with hatchery fish
- Loss of spatial and temporal segregation of spawning habitat among runs

BASELINE

- Harvest
- Habitat elimination & degradation
- Redd superimposition
- Predation
- Entrainment
- Warm water temperatures
- Catastrophes
- Contaminants (agricultural, urban, & industrial)
- Disease

- Loss of floodplain and riparian habitat
- Contaminants (agricultural, urban, & industrial)
- Habitat elimination & degradation
- Construction-related effects
- Warm water temperatures
- Competition
- Disease

- Contaminants (agricultural, urban, & industrial)
- Habitat elimination & degradation
- Warm water temperatures
- Competition
- Disease

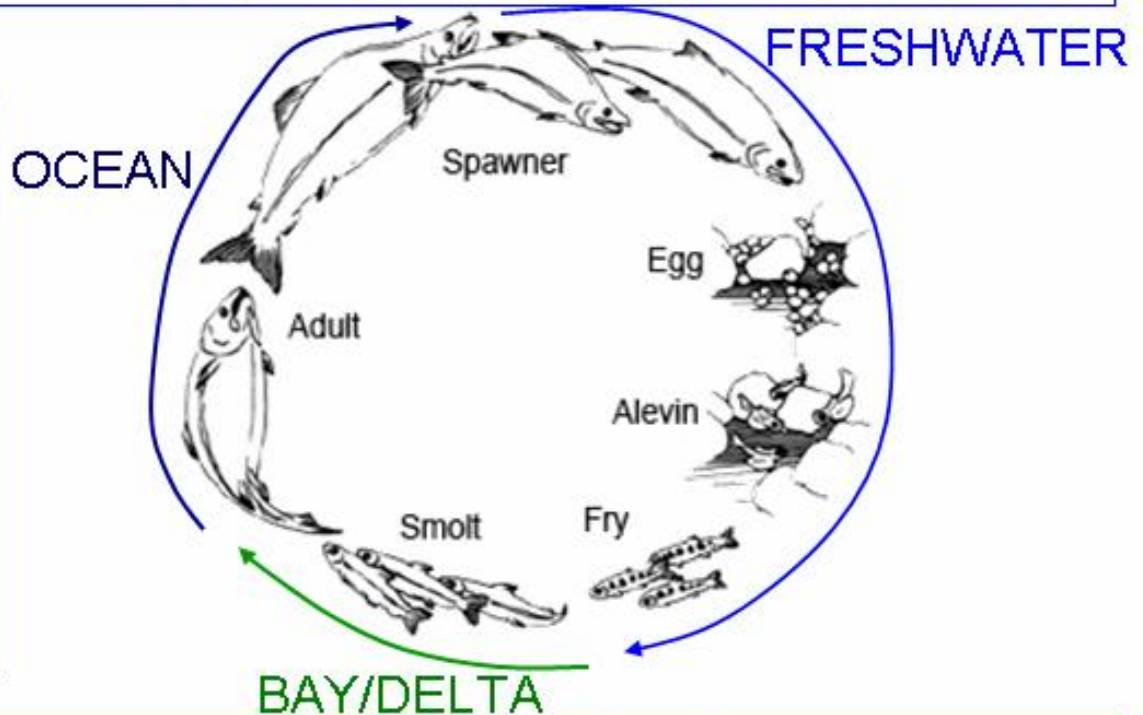
BASELINE

Mortality

- Harvest
- Limited prey availability
- Predation
- Disease

Reduced growth

- Limited prey availability
- Contaminants
- Competition



BASELINE

Mortality

- Predation
- Entrainment
- Disease

Reduced growth

- Loss of ~90 percent of tidal marsh habitat
- Contaminants (agricultural, urban, & industrial)
- Habitat degradation
- Invasive species/food web changes
- Construction-related effects
- Competition

PROPOSED PROJECT

Mortality

- Direct entrainment at Tracy and Skinner Facilities
- Indirect mortality associated with pumping
- Change from a variable salinity Delta to a freshwater system with a larger predator community

Reduced growth

- Change from a variable salinity Delta to a freshwater system with an altered food web that is potentially limiting prey quantity and quality
- Loss of nutrients & primary production to pumping